

Research Permit Application Guidance for Great Smoky Mountains National Park

The information you provide in your research permit application can greatly speed up your application process if it answers all of our questions related to the protection of the natural and cultural resources in the park, the quality experience of our visitors, and adherence to federal law and regulations. This guide attempts to hit the main points about which we may need detailed information, as well as provide a brief description of why we are concerned with those aspects.

It is generally required that a study proposal be submitted along with the permit application. Many researchers have already provided in-depth descriptions of most of their proposed protocols in grant proposals or other documentation and as such, this would serve as a study proposal. This level of detail does not need to be repeated in the application if you upload a copy of your grant proposal. If you have trouble with the upload process, you may contact us about sending the proposal by e-mail or as hard-copy. You may then focus in your permit application on addressing the relevant topics listed below.

Type of project:

Educational – are you collecting only, with no hypotheses tested and no specimens deposited permanently? You will not be expected to submit a study proposal as a separate document, but be certain to indicate where you will be visiting, what habitats you will be visiting, how many of what sort of organism you will be collecting or handling, and if you will be disturbing any soil or using any harmful chemicals in the park. For your annual reports, we may be more interested in the number of people who participated in each of your educational programs, but we welcome any observations you may think we could use.

Commercial – are you affiliated with organizations with commercial intent or do you otherwise hope to develop a commercial use of specimens or their derivatives from the park? Please contact the park about signing a CRADA and other regulations.

Survey Questions – do you intend to ask questions of park visitors or employees? If you are using federal funds for this, you will need special permission from the Office of Personnel Management. Please provide a copy of your proposed survey questions.

Vertebrate Species – are vertebrate species being handled? For mammals and birds in particular, you may be required to show proof of review by your Institutional Animal Care and Use Committee under the Animal Welfare Act. You should provide indication of your compliance with all laws related to migratory birds (for instance, provide your federal bird banding permit number if appropriate). For all vertebrate species, provide details as to your care and handling and protocols for accidental injury and avoiding exposure to zoonotic diseases.

T&E and Special Locations:

Threatened, Endangered, and Rare Species Locations – NPS regulations require that precise locations of rare species not be published, put on the web, or otherwise made available to the general public, for the protection of those species; general locations, such as watersheds, may be acceptable. Indicate if your work is likely to produce such data and park staff will work with you to clarify how this regulation would affect you and have you sign a Confidentiality Agreement. Likewise, if your work requires access to rare species locations recorded by others, we will be able to provide this information after you permit and Confidentiality Agreement have been signed.

Spruce-fir Moss Spider Habitat – if your work may involve disturbing the habitat of this endangered species—on rocks under fir trees above 5,800' elevation (1,800m), you need to provide specific details of why and how this will be done and may need to get permit from the USFWS.

Lower Abrams Creek – from May 1st through August 15th you generally are prohibited from moving rocks in the stream channel without a permit from the USFWS.

Cave Access – do you need to enter any of the park's caves? If so, please indicate when you would like access. Caves are not normally entered from mid-November through the end of April to avoid disturbing hibernating bats of all species. It is prohibited to enter caves with wintering populations of listed bats during this time-frame. Many of our caves are also caged off and would need coordination with park staff for access.

Cultural and Historic Sites – the park generally does not allow research to be conducted in cemeteries, home sites, churches, or other culturally or historically important sites. If you intend to work at such locations, please provide a detailed rationale. You will need to make arrangements to work with the park's cultural resources staff. You will also need the cultural staff to clear your work with heirloom plants, such as apple trees, daffodils, etc.

Best Practices:

Digging – if your work plan involves digging or other disturbance of the soil, especially in flatter areas of the Park, near creeks, etc. or in cultural zones/sites, you will need to coordinate your work with the Park Archeologist, even if your work is not archeological in nature. Please be specific in your description of how much soil would be removed, how deep you will dig or probe, etc.

Work on Lands Adjacent to the Park – Please indicate if you plan to work across the park boundary and indicate that you have made contact with appropriate land owners or agencies to insure that you have appropriate permission. We do not wish to create problems with our neighbors.

Working in Areas of Heavy Visitor Use – if you plan to conduct work along roads, in Cades Cove, in Cataloochee Valley, or in other areas that would put you in the public eye, please provide clear justification as to why this cannot be done out of sight. Certain times of day or times of year may be more or less of a concern depending on visitor use patterns. Flagging, staking, and other signs of your activity must be out of view of persons on trails or roads, both for the visitors' quality of experience and to reduce the chance of vandalism of your site. Please be prepared to explain what you are doing and be able to show a copy of your research permit.

Collecting Large Numbers of Specimens – please justify the numbers of specimens you intend to collect, if any, the benefit to the protection of the park resources as a whole, and why these collections cannot be made elsewhere. Note that, to prevent introduction of disease, most organisms may not be returned to the park if removed to a lab for short-term study. These specimens are considered permanent collections.

Use of Mechanized Equipment – much of the park is managed as de facto wilderness. Please specify what kind of equipment you propose to use and where you propose to use it and justify the use of this equipment, the benefit to the protection of the park resources as a whole, and why these collections cannot be made elsewhere. Note that bears and other wildlife have been known to disturb or destroy traps and other equipment, especially if it contains ethanol or otherwise smells edible. The park is not responsible for damage to equipment caused by wildlife or visitors.

Manipulations of Resources/Environment – please provide details as to the exact nature of the proposed manipulations and justify the use of these manipulations, the benefit to the protection of the park resources as a whole, and why these collections cannot be made elsewhere.

Bringing Soil or Living Organisms into the Park – federal regulations prohibit the introduction of organisms into the natural zones of the park. For activities in the developed or cultural zones of the park, please provide detailed justification as to why these introductions are necessary, the benefit to the protection of the park resources as a whole, why these collections cannot be made elsewhere, and what precautions you intend to follow to insure that the introductions are not permanent.

Ponds and Other Amphibian Breeding Sites – if you are planning to sample in ponds or other relatively low-flow aquatic sites, please outline your protocols for disinfecting your equipment (nets, boots, etc.) before and between visits against the possibility of introducing infective agents. Please notify park personnel if sick or dead amphibians are observed anywhere in the park.

Waders – to reduce the risks of accidentally introducing invasive aquatic species, the park now prohibits the use of felt-soled waders within park streams. Evidence shows that the felt is too difficult to adequately sterilize and can serve as a transport vehicle for propagules of invasive diatoms and other organisms.

Genetic Mixing – other than for a park-sanctioned reintroduction program, park regulations prohibit any possible mixing of genes across populations through the translocation of live organisms within the park, the introduction of native or non-native genetic stock from outside the park, or relocating organisms beyond an isolating barrier. If you are moving live organisms, please indicate how you will prevent inadvertent release. Note that except for park-sanctioned IPM programs, the release of non-native species within the park is prohibited.

Toxic Chemicals – if you plan on using toxic chemicals (including cyanide or other killing agents) in instruments or collection devices, please detail what chemicals you plan to use, where will they be stored, and how you will limit the risk of unintentional exposure to people and wildlife. Note that the park does not have the capacity to dispose of toxic chemicals properly, so all chemicals must be removed from the park for disposal by the end of your research.

Marking of plots/organisms:

Plot marking – please indicate if you intend to mark plots permanently or temporarily, how they will be tagged/marked, and if not permanent, when all tags/marks will be removed. All flagging or other marking techniques must be inconspicuous to the public on roads, trails, or developed areas and should be clearly marked with your study #. Plastic flagging should only be used for short-term marking and should be biodegradable; wildlife and visitors will often remove it.

Marking of Organisms – if you intend to mark organisms temporarily or permanently, please indicate if these marks will be visible to park visitors, list your appropriate permits, and indicate the methods you propose to use for capture, marking, and anesthetizing (if appropriate; see directions for working with vertebrate species).

Data and Specimens:

Data Management – depending on the nature of your research, the NPS may find your raw data of value, even aspects that you do not intend to publish. The Park appreciates a researcher's desire to

publish data before it is made widely available, however the Park is concerned about the many cases of potentially valuable data collected within the park that has never been published and has disappeared when a researcher retires or dies. Please outline your data management plan and how and when you propose to share the data, either directly or through on-line databases. Please feel free to contact the Park Data Specialist to discuss how to send electronic data in electronic format compatible to the Park.

Reports and Publications – please include a list of expected reports and publications related to your research. We ask for copies of all peer-reviewed, gray, and popular publications that come from your work in the park, but in the event that you forget to send us these copies, we would like to know what to be looking for. Unless you are receiving park funding, the only reports we require are an annual update (Investigator's Annual Report or IAR) for the duration of your permit, which is completed on-line in late winter and need not take much of your time. Please take these IARs seriously, as we do. The information you include in your IARs is both publicly available (though we have the capability to block out sensitive information before public release) and circulated through our park management and educators. You also may experience delays or lack of approval for permit renewals or new applications if you are behind in your filing of IARs.

Educational Outreach – many funding agencies require that you include an educational component to your research. The Education Coordinator of the Appalachian Highlands Science Learning Center has been able to help many researchers meet these requirements by arranging seminars, opportunities to teach parts of teacher trainings, assigning high school interns, and accepting articles for park publications, for example. Though it may be premature to spell out in your application what educational products you will provide, please either indicate your interest in discussing this issue and our Education Coordinator will contact you.

Specimens Collected – federal policy dictates that all specimens collected within a National Park Service site remain the property of the NPS and under the curatorial oversight of the NPS. We realize the value of locating specimens where they will get the most use by scientists and have made arrangements for most specimens collected in the park to be deposited in appropriate collections under long-term or indefinite loans. There is also a value to the Park and future researchers working here to have representative specimens of each organism deposited in the park collections. Please indicate where you propose to deposit your specimens and the Park Curator contact you to arrange the paperwork. If you expect the specimens you collect will be destroyed during analysis, please indicate this also.

Special Access:

Access Needed to Areas Usually Closed to the Public – some roads in the park are closed for parts of the year, after dusk, or for certain special events (such as warm-weather closures of Cades Cove Wednesday and Saturday mornings to motorized vehicles). It is often not possible to provide access behind these closures, but exceptions are occasionally made for very good justification. There are also a few administrative roads that are generally off-limits to park visitors but exceptions are sometimes made for the installation and removal of heavy or bulky research equipment. Please be as specific as possible as to why and when you might want special access. Note also that should you receive permission for special access, we would require you have your vehicle clearly marked with an official logo and a copy of your permit, make advance contact with the appropriate ranger office to let them know when you will be inside the gate and when you propose to return, be respectful of park visitors who may be using the area without expecting to see a vehicle (even if they are not respectful to you), and be responsible for your own safety and any problems you might encounter with your vehicle (e.g. getting stuck).

Use of NPS Housing or Campgrounds – GRSM has researcher housing at Purchase Knob from May through October and has on occasion made other housing in other areas of the park available to researchers for rent, as well as front-country camp sites. Please specify if you would be seeking to use any of this housing. Housing is assigned through a different process than your research permit and your permit would not guarantee that you would receive housing where and when you request it.

Back-country Access – we encourage research in remote areas of the park, but caution that researchers must not enter into such a project without a sound safety plan. Please be clear about your intentions in this area in your application. Researchers should file an itinerary while they are in the back-country, either with park staff or someone else whom you will contact when you return to the front country. Camping outside of established camp sites requires a special use permit and camping in some rationed sites requires a free back-country permit. You are thoroughly discouraged from hiking and camping solo, especially off-trail. Search and rescue operations are expensive and take personnel away from their regular duties. You may be charged for some of these expenses if the search and rescue effort is initiated because of your own negligence. Note also that cell phones do not work in much of the park and GPS equipment often does not pick up signals in the valleys.